



UNITED STATES PATENT AND TRADEMARK OFFICE

A

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,716	02/19/2004	Masashi Onishi	50395-253	3211

7590 04/07/2005

McDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

PASCHALL, MARK H

ART UNIT PAPER NUMBER

3742

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary

Application No.

10/780,716

Applicant(s)

ONISHI ET AL.

Examiner

Mark H Paschall

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 4, 5 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05-19-04</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|--|--|

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12 and 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by UK 615'. Note that UK 615' discloses a glass processing method, some embodiments using a plasma flame issuing from the ports. (see lines 4-30 on page 2 for instance. RF energy is used, as stated on page 7 line 1. The full disclosure of UK 615' sets forth different gases and different flow rates for the ports and such does comprise a means for vary the flow rates of the gases as claimed. Note that claim 12 broadly describes multitudes of ICP plasma torches patented, having multiple tubes or ports.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 3742

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uk 615' in view of Partus et al. Uk 615' teaches the claimed subject matter except for showing the torch means for moving the torch relative to the glass perform. The patent to Partus et al is applied for teaching that it is conventional to move a torch relative to a perform, in lieu of moving the preform. In view of this teaching it would have been obvious to modify the Uk 615' system to move the torch in lieu of the disclosed movement of the perform, since the artisan is fully aware that either the torch or the work can be moved in plasma processing of a workpiece, such choice dependent on the type of work processed and the size and nature of the torch.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3742

Claims 1,6,9 are rejected under 35 U.S.C. 102(b) as being anticipated by Fleming, Jr. et al. note dual ports from gas sources 15 and 16 in Figure 1. As set forth in column 4, on line 53-68, the gas from source 16 is a high threshold gas and moves the fireball (plasma) out of the torch nozzle. In column 7, lines 48-65, Fleming, Jr. states that the fireball is enlarged by increasing the gas flow and/or the power to the torch. This clearly teaches the limitation in claim 1, which sets forth adjusting the size of the plasma flame (fireball) by controlling the gas flow rate into the ports in accordance with a processing condition, which in this case comprises the step of cleaning glass.

Claims 2,3,7,8,10,11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fleming, Jr. et al in view of Uk 615'. Fleming Jr. et al teach the claimed subject matter except for showing the particular compositions of claimed gases and use of gases to form particles. However, as set forth in Uk 615', it is conventional to multiple different gases to treat a perform and use of the same leads to beneficial results such as high transmittance of light through the glass. In view of this teaching it would have been obvious to modify the Fleming Jr. et al system for multiple gas use through multiple ports, to attain the benefits of more versatile use by enabling different treatments to the perform such as increasing the light transmittance ability of the glass. As per claim 7 note that Uk 615 teaches heating the glass to form the claimed particles. As per claims 10 and 11, Uk 615' teaches gases of many types and the artisan would have found it well within the level of ordinary skill in glass forming to choose gases appropriate to the type of processing desired and the glass treated. As per claim 15 not

Art Unit: 3742

the Uk 615 patent shows the heating of the outer glass perform as conventional, in addition to the inner glass preform.

Allowable Subject Matter

Claims 4,5 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 4 and 14 contain allowable subject matter as set forth in the prior office action. With respect to claim 5, the prior art of record does not teach use of sealing gas, with its ratio to plasma gas responsible for varying of the flame size.

Conclusion

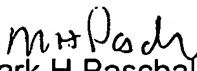
Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection. AS requested by Applicant in the response submitted, an initialed PTO 1449 form is enclosed in the instant office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H Paschall whose telephone number is 703 308-1642. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mark H Paschall
Primary Examiner
Art Unit 3742

mp